

Applicant : J. Stuart Cumming
Appl. No. : 09/943,910
Examiner : Kamrin R. Landrem
Docket No. : 13533.4030

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (withdrawn) An intraocular lens for implanting within a natural capsular bag of a human eye, said lens implant comprising:
 - a lens body having anterior and posterior sides and including an optic and two or more plate haptics spaced about said optic, said haptics having inner ends adjacent to said optic and outer ends extending from said optic, said haptics having lateral edges; and
 - at least one of said haptics having one or more notches spaced about said lateral edges of said haptics and at least one of said haptics having a thinner portion adjacent the optic.
2. (withdrawn) A lens according to claim 1, wherein said notches have an edge portion.
3. (cancelled)
4. (cancelled)
5. (withdrawn) A lens according to claim 2, wherein:
said edge portion being disposed substantially transversally to a longitudinal axis of said haptic.
6. (withdrawn) A lens according to claim 2, wherein:
said edge portion being disposed substantially transversally to a side edge of said haptic.

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7. (withdrawn) A lens according to claim 1, further comprising:
a plurality of protuberances extending outwardly from at least one of the anterior and/or posterior sides of one or more of said haptics to fixate said haptic in a natural capsular bag of an eye.

8. (withdrawn) A lens according to claim 1, wherein:
at least one of said haptics has a plurality of openings formed therethrough to allow fibrosis of an anterior capsule remnant to a posterior capsule remnant through said haptic outer end opening following implantation of said lens into a natural capsular bag of an eye.

9. (currently amended) An intraocular lens for implanting within a natural capsular bag of a human eye, said lens implant comprising:
a single optic having anterior and posterior sides and one or more plate haptics extending from the edge of said optic,
said haptics having inner ends adjacent to said optic and outer ends extending from said optic designed to directly engage for directly engaging the capsular bag, at least one haptic having a thinner portion adjacent the optic,
said haptics being adapted to move said optic anteriorly and posteriorly relative to the outer ends of said haptics upon constriction and relaxation of the ciliary muscle of the eye, and
said haptics having at least one fixation protuberance extending from at least one surface of said haptic designed to directly engage the inside of for directly engaging the capsular bag.

10. (previously presented) The lens according to claim 9, wherein said at least one protuberance extends anteriorly from said haptics.

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11. (previously presented) The lens according to claim 9, wherein said at least one protuberance extends posteriorly from said haptics.

12. (previously presented) The lens according to claim 9, wherein said at least one protuberance extends both anteriorly and posteriorly from said haptics.

13. (previously presented) The lens according to claim 9, wherein said at least one protuberance extends laterally from said haptics.

14. (previously presented) The lens according to claim 9, wherein at said least one protuberance extends anteriorly or posteriorly, or both anteriorly and posteriorly from said haptics, and may have at least one other protuberance that extends laterally from said haptics.

15. (cancelled)

16. (withdrawn) The lens according to claim 9, wherein said haptics have lateral edges, and

at least one of said haptics have one or more notches spaced about said lateral edges of said haptics.

17. (previously presented) The lens according to claim 9, wherein said lateral edges of said haptics are parallel to each other, or tapered outwardly from the optic, or tapered inwardly from the optic.

18. (withdrawn) The lens according to claim 9, wherein said haptics have one or more openings formed therethrough.

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19. (withdrawn) The lens according to claim 9, wherein the protuberances are prong portions with globular knob end portions.

20. (withdrawn) The lens according to claim 9, wherein the protuberances are prong protuberances.

21. (previously presented) The lens according to claim 9, wherein the protuberances extend outwardly from the anterior and/or posterior sides.

22. (previously presented) The lens according to claim 9, wherein the protuberances extend outwardly from the peripheral border of said haptic.

23. (withdrawn) An intraocular lens for implanting within a natural capsular bag of a human eye, said lens implant comprising:

a lens body having anterior and posterior sides and including an optic and two or more plate haptics spaced about said optic, said haptics having inner ends adjacent to said optic and outer ends extending from said optic, said haptics having lateral edges; and

at least one of said haptics having one or more notches with an edge portion and the notches being spaced about said lateral edges of said haptics, said edge portion being disposed at a substantial angle to a longitudinal axis of said haptic.

24. (withdrawn) An intraocular lens for implanting within a natural capsular bag of a human eye, said lens implant comprising:

a lens body having anterior and posterior sides and including an optic and two or more plate haptics spaced about said optic, said haptics having inner ends adjacent to said optic and outer ends extending from said optic, said haptics having lateral edges; and

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at least one of said haptics having one or more notches with an edge portion and the notches being spaced about said lateral edges of said haptics, said edge portion being disposed at a substantial angle to a side edge of said haptic.

25. (currently amended) An intraocular lens for implanting within a natural capsular bag of a human eye, said lens implant comprising:

a single optic having anterior and posterior sides and one or more haptics extending from the edge of said optic,

said haptics having inner ends adjacent to said optic and outer ends extending from said optic designed to directly engage ~~for directly engaging~~ the capsular bag,

said haptics being adapted to move said optic anteriorly and posteriorly relative to the outer ends of said haptics upon construction and relaxation of the ciliary muscle of the eye, and

said haptics having fixation protuberances extending both anteriorly and posteriorly from ~~at least a surface of~~ said haptic designed to directly engage ~~for directly engaging~~ the inside of the capsular bag.

26. (previously presented) The lens according to Claim 25, wherein said haptics comprise at least a pair of haptics both having protuberances extending both anteriorly and posteriorly therefrom.

27. (previously presented) The lens according to Claim 26, wherein said haptics are plate haptics and each have a thinner portion adjacent the optic.

28. (withdrawn) The lens according to Claim 9 wherein at least one of said haptics has one or more notches with an edge portion and the notches being spaced

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about said lateral edges of said haptics, said edge portions being disposed at a substantial angle to a longitudinal axis of said haptic.

29. (withdrawn) The lens according to Claim 25 wherein at least one of said haptics has one or more notches with an edge portion and the notches being spaced about said lateral edges of said haptics, said edge portions being disposed at a substantial angle to a longitudinal axis of said haptic.

30. (currently amended) A flexible accommodating intraocular lens including a flexible optic to be placed within the capsular bag of the eye,

the lens comprising an optic with anterior and posterior sides and two or more extending portions from the optic designed to directly engage ~~for directly engaging~~ the capsular bag,

the extending portions having at their distal ends fixation devices such that the intraocular lens has four or more fixation points for centration and fixation directly in the periphery of the capsular bag, and

the lens being adapted to move anteriorly upon ciliary muscle construction.

31. (previously presented) An accommodating intraocular lens according to Claim 30 wherein the extending portions comprise haptics.

32. (previously presented) An accommodating intraocular lens according to Claim 30 wherein the fixation points comprise protuberances.

33. (previously presented) An accommodating intraocular lens according to Claim 32 wherein the protuberances extend anteriorly and posteriorly.